

## **Explore Riparian Areas on the Coal Creek Trail**

City of Louisville Self-Guided Ranger Walk

**Duration:** 2 miles (1 mile out, 1 mile back).

**Difficulty:** Easy

**Parking:** 955 Bella Vista Dr. (Community Park)

On this hike, we will explore **riparian zones** found along the Coal Creek Trail on Dutch Creek Open Space. A riparian zone occurs where dry land meets the rivers and streams that cut their way through the landscape. As we will explain in this hike, riparian zones are critical habitat for many species of plants and animals that depend on these precious ribbons of water.



Coal Creek inundated parts of Dutch Creek Open Space during the 2013 Flood.

# Trail Etiquette

As you enjoy your hike, please follow our Open Space rules and be courteous to other trail users:

- Maintain social distancing of 6 feet or more with other users.
- Enjoy this tour on your own or with other members of your household. Do not meet individuals or groups outside your residence to complete it!
- Keep all pets on a leash and under physical control at all times.
- Pick up and dispose of all trash and pet waste.
- If you are standing still, make sure to step to the side of the trail to let other trail users pass.
- Do not pick or remove any flowers, plants, or other natural or human-made materials.
- Have fun!





1. Starting at Community Park, cross Bella Vista Dr. to access the gravel, or crusher fines, path on the south side of the street. Follow this path west to the intersection of Bella Vista Drive and Aspen Way. Turn left to follow the path along Aspen Way.
2. Turn left at the sign marking the entrance onto Dutch Creek Open Space. Continue to walk about 30 yards.
3. Stop and look around. What kind of vegetation do you see to the left, toward where the creek flows? What do you see to the center and the right, on either side of the path?

Around the creek, you should see dense stands of cottonwood trees and other shrubs, such as sandbar willow.

Around the path are mostly grasses with some forbs (broad-leafed plants) mixed in.

The soils in riparian zones are wetter because of the water that runs through them, both above the surface and below it. These moister soil conditions support dense stands of plants, such as cottonwoods, plums, and choke cherries, that wouldn't survive in drier, upland conditions. As you continue your walk, think of the different kinds of wildlife that might benefit from the presence of these large, riparian trees and shrubs!

4. Continue walking south along the trail. As you walk, see if you can identify the grass species present on the property. These include mostly introduced dryland pasture species such as smooth brome, intermediate wheatgrass, and crested wheatgrass.



ABOVE: Intermediate wheatgrass. Photo by Patrick Alexander, hosted by the USDA-NRCS PLANTS Database.

LEFT: Crested wheatgrass. Photo by Loren St. John, hosted by the USDA-NRCS PLANTS Database.

5. Continue walking about 200 yards. You should pass through an area where the path continues through a stand of cottonwood trees. Stop here.

**Is it hotter or cooler than when you were in the open?**

How about the wind (if it is blowing), is it stronger or softer? The extra foliage cover in riparian areas offers shelter to many plants and animals. Besides many species of birds, mammals such as cottontail rabbits, foxes, and white-tail deer will sometimes take cover in these areas to seek shade or protection.



Smooth brome. Photo by Larry Allain, hosted by the USDA-NRCS PLANTS Database.

6. Keep walking. As you emerge out of the trees, you should see a well-worn social (dirt) trail on the left side of the designated concrete trail. Follow it for about fifty yards until it ends on the steep sides of an embankment. Please note: Normally trail users should remain on designated crusher fines or concrete trails. In this case, we are making an exception for educational purposes. Please refrain from using social trails in your normal visits to City Open Space!
7. This is an area where the creek has eroded out a small gulley. Flood events, like the 2013 Flood, play an important role in scouring out stream channels such as this one.

**Where do you think this sediment goes?** Sediment and nutrients scoured by high flows or floods are deposited on flood plains or in lakes or ponds downstream. This helps to fertilize flood plains and is an important part of nutrient cycling in lakes and ponds.

**How does this habitat change during the year?** During high flow times, such as in the spring or after heavy rains, this bend in the creek is filled with water, and river-dwelling fish call it home. During dry times, small, stagnant pools remain where invertebrates and amphibians can live and reproduce.

**What about all that debris?** Note the logs, branches, and other debris piled up against tree trunks and up against notches in the embankment. These collections of debris are important cover and habitat for numerous wildlife species, and can provide materials for them to build nests, dens, or other shelters.

**Feel free to explore this area.** Climb down and look around if it is safe to do so and if the water is low. Note the different soil strata, or layers, visible in the embankment walls.

8. When you are finished exploring, climb out of the embankment and continue southwest on the trail. Here, the trail corridor between the creek and the houses on the right is fairly narrow.

**How do riparian zones protect humans?** Imagine if the houses went right up to the banks of the creek. If a flood occurred, the water would quickly inundate peoples' backyards and houses. Maintaining a strip of open space around riparian zones allows these lands to act like a sponge, absorbing high flows and providing a safety barrier between people and flood waters. The wider the barrier, the better! Riparian zones help people, plants, and wildlife at the same time!

9. As you continue on the trail, the creek will bend to the left and the path will open up onto the northeast tip of the Coal Creek Golf Course. Take the trail to the left at the informational sign and continue across the bridge. During the 2013 Flood, the Golf Course acted as a flood plain barrier and helped protect nearby homes from damage.
10. The trail will curve and take you along another narrow corridor. There will be pasture land on the left and the creek should be on your right.

**How does Open Space protect riparian zones?** As you continue walking, imagine if the area to the left were filled with houses. What would happen if all those grasses, shrubs, and trees were replaced with hard surfaces that shed water, like asphalt and concrete? Open Space barriers around riparian zones protect water quality by minimizing runoff, which reduces the amount of sediment and pollutants that make it into streams.

**How does the City of Louisville protect riparian zones?** Look at the map of the City of Louisville's Parks and Open Space system on the next page. The two black arrows trace the general course of two riparian corridors through the city. Notice how the Open Space and Parks properties tend to line up along these corridors. The City of Louisville and its partners, such as the City of Lafayette and Boulder County Parks and Open Space prioritize the preservation of riparian zones and buffers of open space or park lands around them.

11. When you reach the end of the trail, you will emerge into a neighborhood. Turn around and head back to the beginning to complete your tour!

